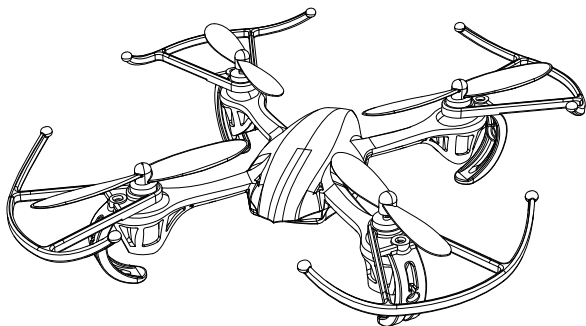




14⁺age

HS170

INSTRUCTIONS FOR USE



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< PREFACE >

To make your experience with this drone as straightforward and convenient as possible, please read this instructions before operating and keep it for the future reference and maintenance.

Important Statement:

1. This product is not a toy, but it is a high precision drone that integrates various electronic stability and control mechanisms. This drone requires careful and correct assembly and setup to ensure safe, accident- free operation. This equipment should be operated in a safe and controlled manner at all times. Incorrect or hazardous operation may cause damage to the device or property, or cause serious injury to those in the vicinity.
2. This product is suitable for experienced drone pilots over 14 years of age.
3. In case of having difficulties on any aspect of the product, operation or maintenance, please contact your local sales agent or contact customer support here at Holy Stone.

Safety Guidelines

This product is Mini RC Drone that offers easy, controllable flight when in good working order, however, there is also a significant risk to property and people if flown irresponsibly or within confined spaces. Incorrect assembly or poor control by inexperienced pilots can result in damage to property or harm to people in an accident. Be fully aware of your surroundings when flying and always maintain complete control of the vehicle at all times.

1. Keep in Distance:

- a. Always fly in locations that are clear of any obstructions, such as buildings, poles, electrical wires, trees and so on.
- b. Never fly above or near people and spectators.

2. Do not fly in adverse weather conditions:

- a. Keep clear of moisture, fog, ice and excessive wind.
- b. Fly in good weather conditions only.

3. Use and maintain the product according to the instructions for use:

- a. Operate this device legally in accordance with instructions provided and with local laws and regulations.
- b. Always use original parts manufactured by Holy Stone for maintenance and repair.

4. Do not operate the device alone.

- a. If you are a new pilot, seek assistance from an experienced drone pilot when learning.
- b. Have others around to help you fly at all times.

5. Safety First every time:

- a. Always operate the drone within your ability as a pilot. If you are ill, disoriented, or unsure of how to effectively fly the drone, please seek help to avoid danger, damage or injury.

6. Keep clear of rotation parts:

- a. During operation the rotors revolve extremely quickly, please avoid touching the blades and ensure that foreign objects are kept clear of all moving parts.

7. Avoid exposure to excessive heat:

a. Due to the numerous material types used in construction, this drone is not suitable for exposure to heat. Please keep your device away from heat sources and avoid prolonged exposure to direct sunlight. High temperatures are capable of distorting the structure of drone and lead to unpredictable consequences.

<WARNINGS>

1. The information and guidance within this package and instructions for use are important for the safe operation and maintenance of your drone. Please keep it well for future reference.
2. You accept sole responsibility for any injury, loss or damage that result from your operation of the device.
3. Always follow the instructions when assembling or operating the drone. Always keep at least 2 meters between the user or viewers and the model to avoid risk of injury. Pay attention to the device at all times while flying.
4. Neither Holy Stone nor any distributors or agents accepts any responsibility for loss, injury or damage caused by incorrect operation of the drone.
5. This drone is not suitable for children under the age of 14. Younger pilots should always operate the drone under the supervision of an adult.
6. Please ensure assembly instructions are followed correctly to ensure proper operation and performance of your drone.
7. This product contains small parts. To avoid any choking hazard, please keep this drone and all its components out of the reach of children.
8. To avoid accidents, under no circumstances should this drone be flown over open water or near public roads.
9. Keep all packaging materials away from children and dispose them in a safe manner.
10. The internals of the drone are not user serviceable. To avoid malfunctions during flight, please do not attempt to disassemble this drone or replace any part of the drone.
11. Please ensure batteries are fitted in the correct orientation as shown in this instructions.
12. You can access the transmitter battery compartment by unscrewing the screws on the battery cover. Insert batteries ensuring they are in the right orientation. Always put battery cover back and tighten the screw to secure before use.
13. Only use the charger provided with your drone for safety.
14. The charger is not a toy.
15. Always pay close attention to battery polarity when inserting any batteries to make sure they are fitted correctly.
16. Use either rechargeable or nonrechargeable "AA" batteries in the transmitter. Do not mix battery types.
17. Use only recommended batteries in the transmitter, please remember that non-rechargeable batteries must not be charged.

18. For rechargeable batteries, always follow manual instructions for use and have adult supervision. Do not leave charging batteries unsupervised and as batteries get hot when charging, avoid any combustible material.
19. Avoid short circuits by fitting the batteries incorrectly, and do not crush or squash batteries as this carries a risk of explosion.
20. Do not mix new and old batteries as this can lead to unpredictable performance.
21. Dispose used batteries carefully, and do not litter.
22. The power socket must not be removed from this drone. Do not attempt to short-circuit the connection socket.
23. When disposing batteries, do not throw on fires, leave to decompose. Keep clear of heat sources and high temperatures at all time.
24. If the device is not going to be used for an extended period, remove batteries to prevent potential damage from battery leakage.
25. Care should be taken to keep your drone away from sources of magnetic interference of otherelectrical equipment to prevent signal issues during operation.
26. Keep clear of rotating parts and beware of loose clothing that could become entangled in the rotors causing injury.
27. Beware of the noise volume the drone produces. Keep your distance to avoid hearing impairment.
28. The charger socket uses a mini USB 5V connection.
29. Always use the product in compliance with local aviation radio rules and comply with local authorities who require you to refrain from operating at any time.

<MAINTENANCE>

1. Clear the product with a clean, soft cloth after each use..
2. Avoid prolonged exposure to direct sunlight and avoid buildup of heat on the drone.
3. This device is not waterproof and must not be submerged in water under any circumstance. Failure to maintain the device completely dry will result in the failure of the unit.
4. Check the charging plug and other accessories for signs of damage frequently. If any part of the device is damaged, refrain from flying until maintenance can be carried out.

Package Contents

No.	Part Name	Picture	Quantity
1	Drone		1
2	2.4G Transmitter		1
3	3.7V 350mAh Li-po Battery		1
4	Additional Rotating Propeller		4
5	USB Charging Connector		1
6	Screwdriver		1
7	Instructions For Use		1
8	Propellers Spanner		1

Specifications

● Drone

MODEL: HS170

Weight (Including Battery) : 31.3g

Flight Time: 6-8 minutes

Motor Model: 720

Operating Temperature Range : 32° to 104° F (0° to 40° C)

Dimensions: 120*120*34mm

● Transmitter

Operating Frequency: 2.4GHz

Max transmission distance: 50m

(Outdoor And Unobstructed)

Battery: 1.5V Alkaline Battery

Operating Temperature: 32° to 104° F (0° to 40° C)

● Flight Battery

Capacity: 350 mAh

Voltage: 3.7V

Battery Type: LiPo

Energy: 1.30Wh

Net Weight: 10.6g

Charging Power: 5-10W

Charging Time: 45-60mins (Depending on Charging Power)

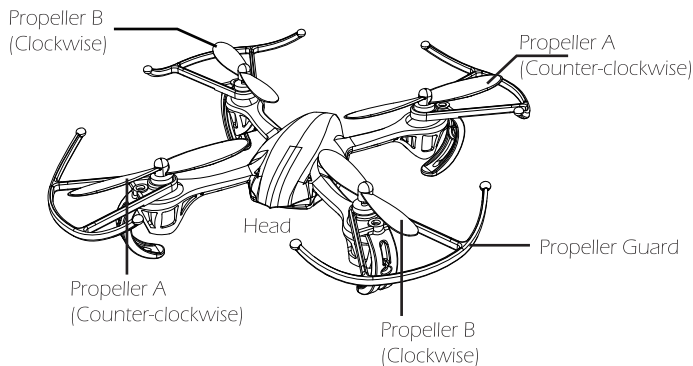
Charging Temperature Range: 14° to 104° F (-10° to 40° C)

● USB Charger

Voltage: 5V

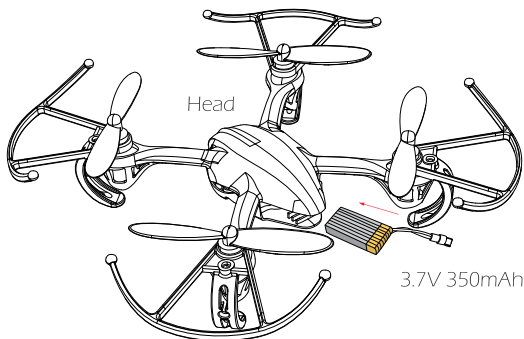
Rated Power: ≤10 W

Drone

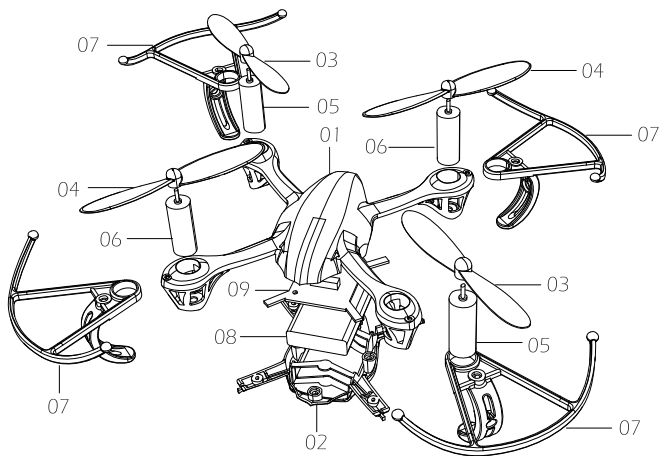


 It is crucial that all the propellers are installed in the correct position (Pay attention to the letter "A" or "B" printed underneath each propeller.)

Battery of Drone

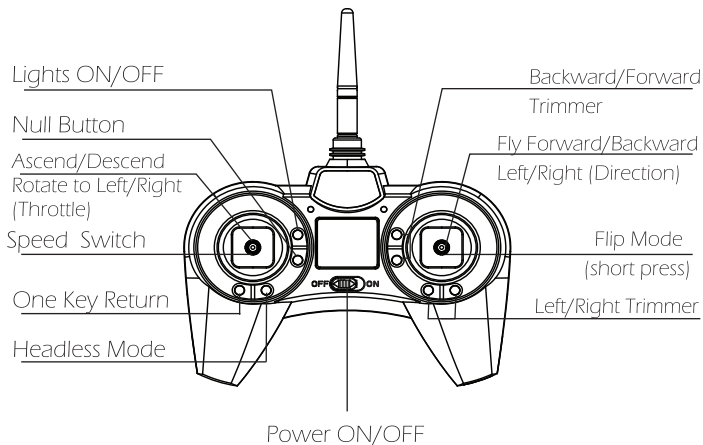


Drone's Details



SN	NAME	Qty.	SN	NAME	Qty.
01	Upper Body	1	06	Counter-clockwise Motor	2
02	Bottom Body	1	07	Propeller Guard	4
03	Clockwise Propeller	2	08	Battery Cell	1
04	Counter-clockwise Propeller	2	09	Receiver Board	1
05	Clockwise Motor	2			

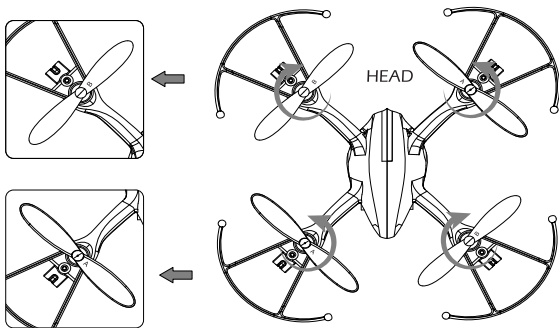
Transmitter Functions



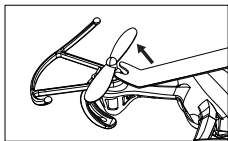
Preparations for Flight

1 Check the Position of all Propellers

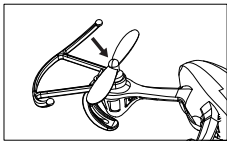
1. Make sure all the propellers are attached to the correct motor position before flying, and please note that letter "A" or "B" is printed underneath each propeller.
(B: clockwise; A: counter-clockwise)



2. If the propellers are installed incorrectly, remove the propellers with the propeller spanner (Pic.1).
3. There is a hole at the bottom of propeller, attach the new propeller to the motor shaft (Pic.2).



Pic. 1

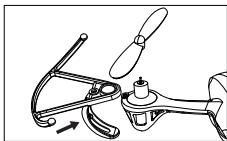


Pic.2

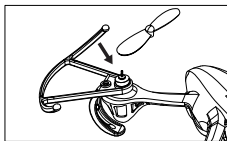
Tips: Be careful and pull out the propellers gently when you remove it, otherwise, the wires attached to the motors will be pulled off.

2 Assemble the Propeller Guard

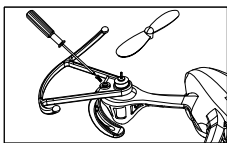
1. Pull out the propeller (Pic.3).
2. Attach the Propeller Guard to the motor (Pic.4).
3. Tighten the screw on the motor base (Pic.5).



Pic. 3



Pic.4



Pic. 5

3 Charge Lipo Battery

1. Connect the battery to the USB charging connector.
 2. Plug the connector into a computer, a USB power adapter (5V 0.5-1A) or a Powerbank. (Please use equipped charging connector to charge the lipo battery.)
- > The red indicator light on the USB charging cable will turn on during charging.
 - > Once charging is complete, the red light will turn to green.
 - > Charging time: about 45-60 mins, flight time: about 6-8 mins.



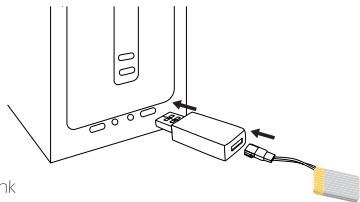
Balanced charging



Computer charging

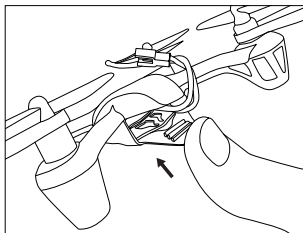


Powerbank

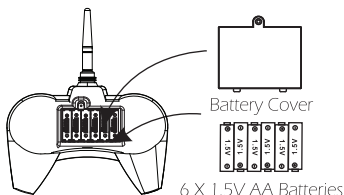


4 Install the Battery

- For drone - Pull the little white tab down gently to insert the battery into the drone.



- For transmitter - Open the battery cover of the transmitter, install the batteries into the battery compartment according to electrode instructions (AA Batteries are not included), then, close and secure the battery cover.



Notice:

- (1) When installing the batteries, follow the electrode instructions, and don't load the batteries incorrectly.
- (2) Don't mix new and old batteries.
- (3) Don't mix different types of batteries.

Fly Safety Information



+



+



Fly in Open Areas

Maintain Line
of Sight

Fly Below
50 m



Avoid flying over or near obstacles, crowds, high voltage power lines, trees, airport or bodies of water.

DO NOT fly near strong electromagnetic sources such as power lines and base stations as it may affect the onboard compass.



DO NOT use the drone in adverse weather conditions such as rainy, snowy, foggy and windy days. (don't exceeding **3.3 m/s** or **11 mph**.)



No Fly Zone

Stay away from the rotating propellers and motors.



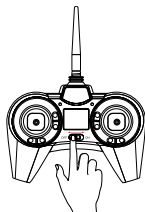
The basic flight guidelines are important for pilots' safety and the surroundings. Please read the Safety Guidelines carefully.

Flight



- Rotating propellers can be dangerous. Do not start the motors when there are people nearby.
- Always keep your hands on the transmitter so long as the motor is still spinning.
- Only stop motors mid-flight in emergency situations when doing so can reduce the risk of damage or injury. Refer to the instructions.

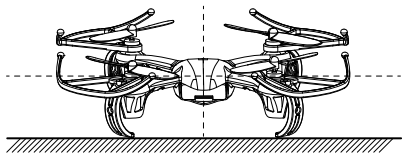
1. Pair the Drone



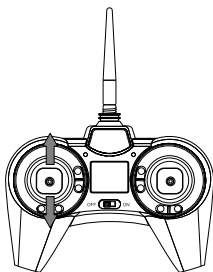
- ① Slide the “Power on/off” button to the right to turn the transmitter on.



- ② Connect the battery to the drone to turn it on, and the LED indicator lights on the drone will blink.

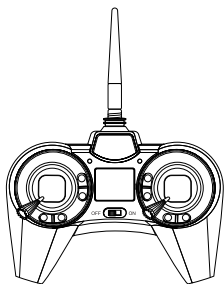


- ③ Place the drone on a flat and level surface with the head facing forward and the tail facing towards the pilot.



- ④ Push left joystick up then down to pair the drone and transmitter. The LED indicator lights on the drone will turn solid, indicating the connection is established successfully.

2. Calibrate the Drone



- ⑤ Push both joysticks to the bottom left to calibrate the gyro. The LED indicator lights on the drone will blink and turn solid, and a beep will be heard from the transmitter, which means calibration is completed.

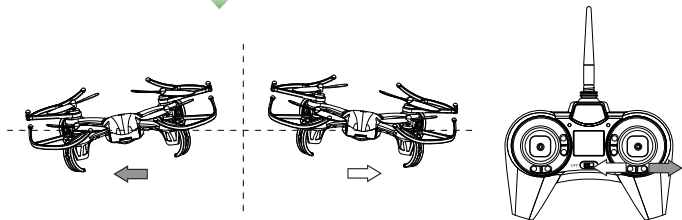
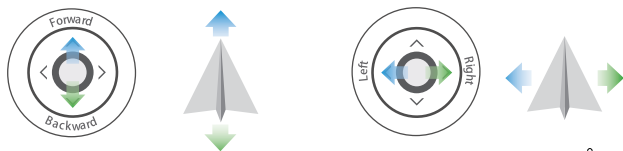
(To ensure a stable flight, we suggest the pilot calibrate the gyro every time after pairing the drone and after a crash.)

3. Flight Control

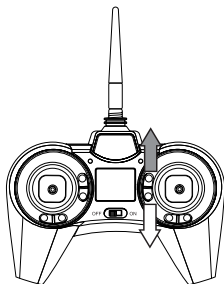
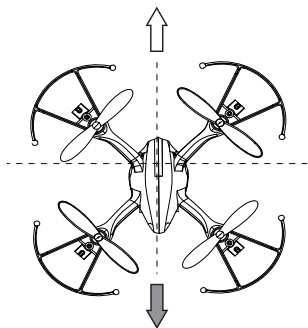
⑥ Left (Throttle) Joystick.



⑦ Right (Direction) Joystick.



- ⑧ **L/R Sideward Fly Trim** : If the entire body of the drone drifts left or right after taking off, use these buttons to re-balance the drone. (Press the left trimmer button if it moves to right; press the right trimmer button if it moves to left).

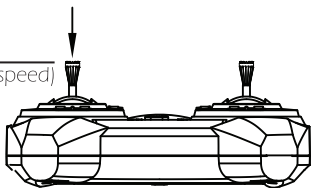


- ⑨ **F/B Sideward Fly Trim** : If the entire body of the drone drifts forward or backward after taking off, use these buttons to re-balance the drone. (Press the forward trimmer button if it moves to backward; press the backward trimmer button if it moves to forward).

Speed Switch

This drone comes with 3 speed modes(Low/Medium/High). Press the left joystick to switch the speed mode. One beep from the transmitter indicates it is in low speed mode, two beeps indicate medium speed, and three beeps indicate high speed.

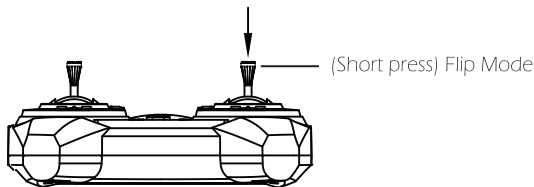
Press down left stick
(Low/Medium/High speed)



Flip Mode

Quickly press the right joystick, and the transmitter will beep constantly, which indicates the drone has entered Flip Mode. Move the Right Joystick Forward/Backward/ Left/Right, and the drone will do a flip towards the corresponding direction.

Caution: Fly at least 3 meters up and allow plenty of space for the drone to flip to prevent crashes or damage. Flipping works best with a fully charged battery.

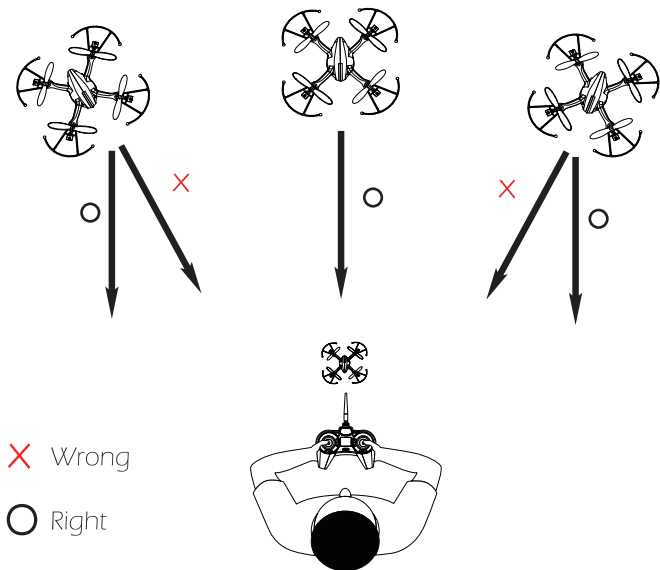


Headless Mode

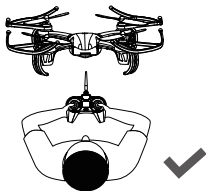
1. Press the Headless Mode button to enter Headless Mode. The transmitter will keep beeping constantly in Headless Mode, and the lights on the drone will keep flashing.
2. Press this button again to exit the Headless Mode.
3. Under Headless Mode, the forward direction is the direction the pilot faces where the pilot pairs the drone with the transmitter. If the pilot pushes the right joystick forward, the drone will fly forward. If the pilot pushes the right stick backward, the drone will fly towards him/her. If the pilot pushes the right joystick left or right, the drone will also move left or right relative to you.

One Key Return

Press the one key return button during the flight, the transmitter will beep slowly, and the drone will return to the point where it was bound (to the remote), not where the remote is. That said, we suggest pilot to stay stationary and face the same direction in which he set the head of the quad copter to face when binding the remote.



The direction of control when the drone is paired



The direction of control when the drone is paired.



Don't turn your direction



Don't turn your direction

Tips (Important!)

1. When pairing the transmitter to the drone, make sure the head of the drone is facing forward, and the tail of the drone is facing towards the pilot (and the transmitter).
2. When flying in Headless Mode/ One Key Return, the pilot should not move around. This is because the drone (not with GPS) will only fly relative to the pilot where it was bound (to the transmitter), not relative to where the transmitter is.
3. That said, it is important to stay stationary and face the same direction as you were when the drone was paired (with the transmitter).

 **Please use Headless Mode and One Key Return function after you totally comprehend these functions, otherwise, it may cause some loss and damage.**

Trouble Shooting

THE PROBLEMS	REASONS	SOLUTIONS
The LED lights flash and the drone doesn't respond to the transmitter during operation.	1. Transmitter is not synced to the drone. 2. Insufficient battery power.	1. Refer to the Manual and re-sync the drone. 2. Recharge the battery.
The propellers spin, but the drone cannot take-off.	1. Insufficient battery power. 2. The propellers are installed in wrong orientation. 3. The propellers are distorted.	1. Recharge the battery. 2. Install the propellers in right orientation. 3. Replace the propellers.
The drone shakes heavily.	The propellers are distorted.	Replace the propellers.
Drone cannot stay balanced in flight.	1. The propellers are distorted. 2. The motor doesn't work properly.	1. Replace the propellers. 2. Replace the motor.
Drone is unstable after crash.	Six-axis acceleration sensor loses its balance after crashing.	Restart and re-calibrate the drone.
One Key Return button doesn't work properly.	1. Pilot changed position/ location after connecting the transmitter to the drone. 2. Transmitter button doesn't function. 3. Battery runs out	1. Reconnect the transmitter and try again the one key return function. Make sure that you don't move or turn after doing so. 2. Use another transmitter. 3. Fully charge the battery, or use a new battery.

For more further technical support, please do not hesitate to contact us via Email or Hot Line Phone Call.



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ca@holystone.com (Canada)
eu@holystone.com (Europe)
jp@holystone.com (Japan)



+1(855) 888-6699

General Information

FCC Notice:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Notice:

This device complies with Canada Industry licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference; and
- (2) this device must accept any interference. Including interference that may cause undesired operation of the device.

CAN ICES-3 (B)

Avis d'Industrie Canada

Le présent appareil est conforme aux CNR d'industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1) l'appareil ne doit pas produire de brouillage; et
- 2) l'utilisateur de l'appareil doit accepter le brouillage radioélectrique subi même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CAN NMB-3 (B)

RF Exposure

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

HOW TO RECYCLE THIS PRODUCT

This symbol on the product or its documentation indicates that it must not be disposed of with household waste. Uncontrolled waste disposal may harm the environment or human health.

Please separate your device from other types of waste to recycle it responsibly. This will help to foster the sustainable re-use of material resources.

We invite you to contact your retailer or inquire at your local town hall to find out where and how the drone can be recycled.



BATTERY WARNING:

- 1.Failure to follow all the instructions may result in serious injury, irreparable damage to the battery and may cause a fire, smoke or explosion.
- 2.Always check the battery's condition before charging or using it.
- 3.Replace the battery if it has been dropped, or in case of odour, overheating, discolouration, deformation or leakage.
- 4.Never use anything other than the approval LiPo charger the battery. Always use a balancing charger for LiPo cells or a LiPo cell balancer. It is recommended that you do not to use any other charger than the one provided with the product.

- 5.The battery temperature must never exceed 60°C(140°F) otherwise the battery could be damaged or ignite.
- 6.Never charger on a flammable surface, near flammable products or inside a vehicle (perferably place the battery in a non-flammable and non-conductive container).
- 7.Never leave the battery unattended during the charging process. Never disassemble or modify the housing's wiring, or puncture the cells. Always ensure that the charger utput voltage corresponds to the voltage of the battery. Do not short circuit the batteries.
8. Never expose the LiPo battery to moisture or direct sunlight, or store it in a place where temperatures could exceed 60°C(car in the sun, for example).
- 9.Always keep it out of reach of children.
- 10.Improper battery use may result in a fire, explosion or other hazard.
- 11.Non-rechargeable batteries are not to be recharged. Rechargeable batteries are only to be charged under adult supervision.
- 12.Different types of batteries or new and used batteries are not to be mixed.
- 13.Batteries are to be inserted with the correct polarity.
- 14.The supply terminals are not to be short-circuited. Regular examination of transformer or battery charger for any damage to their cord, plug, enclosure and other parts and they must not be used until the damage has been repaired.
- 15.The packaging has to be kept since it contains important information.
- 16.The toy is only to be connected to Class II equipment bearing the symbol. 

Caution

RF Power (EIRP):-8.97dBm (2420MHz~2460MHz)

1.Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to your local recycling center.

2.The max operating temperature of the EUT is 114F and shouldn't be lower than 14F.

3.The device complies with RF specifications when the device used at 0mm from your body.

4.Declaration of Conformity

We, Xiamen Huoshiquan Import & Export CO., LTD hereby, declare that the essential requirements compliance with the Directive 2014/53/EU, the RoHS Directive 2011/65/EU and Safety Directive 2009/48/EC have been fully fulfilled on our product with indication below:

Product Name: Radio Control Drone

Model/Trademark: HS170/Holy Stone

The Statement of compliance is available at the following address:

http://www.holystone.com/Download/CE/HS170_EU_DOC.pdf

This product can be used across EU member states.

MANUFACTURER INFORMATION

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